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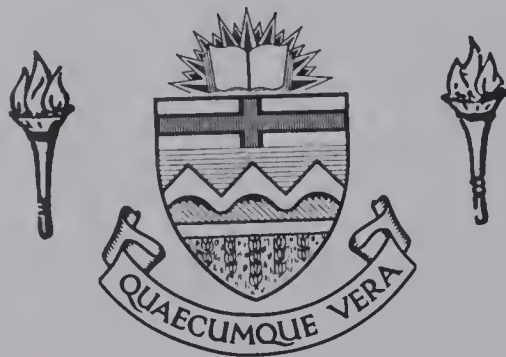
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INTELLECTUAL ATTITUDES AND THEIR RELATIONSHIP  
TO AUTHORITARIANISM IN TEACHERS

BY

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES  
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THE UNIVERSITY OF ALBERTA  
FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Intellectual Attitudes and Their Relationship to Authoritarianism in Teachers," submitted by Mary A. Knox in partial fulfillment of the requirements for the degree of Master of Education.



## ABSTRACT

The purpose of this study was to examine the relationship of intellectual and authoritarian attitudes of teachers. The relationship of the following variables to intellectualism and authoritarianism was determined: length of teacher training, method of obtaining further teacher training, experience, age, grade level taught, sex and location (rural and urban).

It was hypothesized that a negative relationship exists between intellectualism and authoritarianism. It was further hypothesized that years of teacher training, method of obtaining teacher training (intramural), grade level taught, and location (urban) are all positively related to intellectualism while the number of years of teaching experience is negatively correlated. It was also hypothesized that age has a curvilinear relationship to intellectualism.

The hypotheses regarding authoritarianism indicated a negative correlation between the F Scale scores and the years of teacher training, method of obtaining further training (intramural), grade level taught and location (urban). A positive relationship was hypothesized for both age, and years of teaching experience and authoritarianism. It was also hypothesized that female teachers will score higher on the F Scale than male teachers.

The Intellectualism-Pragmatism Scale (I-P Scale) was used as a measure of intellectualism while the F Scale was used to measure authoritarianism.



The I-P Scale, the F Scale and a personal data form were mailed to 631 teachers in Alberta. Four hundred and fifty of those returned were used in this study.

Findings of this study reveal that intellectualism and authoritarianism are negatively correlated. Furthermore the number of years of teacher training correlated positively with intellectualism and negatively with authoritarianism. The hypothesis that urban teachers will score higher on the intellectualism scale and lower on the authoritarianism scale than rural teachers was supported.

It was found that those teachers who obtained their training primarily through extramural study scored significantly higher on the F Scale than those teachers who obtained their training through intramural study. Female teachers exhibited significantly higher scores on the authoritarianism scale than did the male teachers.

Age, years of teaching experience, and grade level taught were not significantly related to intellectualism or authoritarianism.



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# TABLE OF CONTENTS

CHAPTER		PAGE
I	INTRODUCTION AND PROBLEM . . . . .	1
	DEFINITION OF TERMS . . . . .	4
	Intellectualism . . . . .	4
	Pragmatism . . . . .	5
	Authoritarianism . . . . .	6
II	REVIEW OF RELATED LITERATURE AND THEORETICAL	
	ORIENTATION . . . . .	7
	INTELLECTUALISM . . . . .	9
	AUTHORITARIANISM . . . . .	11
	HYPOTHESES . . . . .	18
	A. Hypotheses Concerning Intellectualism . .	18
	B. Hypotheses Concerning Authoritarianism . .	19
	C. Hypothesis Concerning Intellectualism	
	and Authoritarianism . . . . .	20
III	EXPERIMENTAL DESIGN AND PROCEDURE . . . . .	21
	SAMPLING . . . . .	21
	INSTRUMENTS USED IN THIS STUDY . . . . .	22
	The Intellectualism-Pragmatism Scale . . . .	22
	The F Scale . . . . .	23
	PROCEDURE . . . . .	24



CHAPTER		PAGE
IV	STATISTICAL ANALYSIS AND FINDINGS . . . . .	26
	PRELIMINARY STATISTICAL PROCEDURES. . . . .	26
	STATISTICAL FINDINGS PERTAINING TO	
	INTELLECTUALISM . . . . .	27
	Hypothesis 1 . . . . .	27
	Hypothesis 2 . . . . .	30
	Hypothesis 3 . . . . .	33
	Hypothesis 4 . . . . .	34
	Hypothesis 5 . . . . .	35
	Hypothesis 6 . . . . .	38
	Hypothesis 7 . . . . .	39
	Prediction of I-P Scale Scores . . . . .	40
	STATISTICAL FINDINGS PERTAINING TO	
	AUTHORITARIANISM . . . . .	42
	Hypothesis 1 . . . . .	42
	Hypothesis 2 . . . . .	45
	Hypothesis 3 . . . . .	48
	Hypothesis 4 . . . . .	50
	Hypothesis 5 . . . . .	52
	Hypothesis 6 . . . . .	54
	STATISTICAL FINDINGS CONCERNING INTELLECTUALISM	
	AND AUTHORITARIANISM . . . . .	58



CHAPTER		PAGE
	Hypothesis C . . . . .	58
	CONCLUSION . . . . .	58
V	DISCUSSION AND IMPLICATIONS . . . . .	61
	DISCUSSION OF FINDINGS . . . . .	61
	LIMITATIONS OF THE STUDY . . . . .	63
	IMPLICATIONS FOR FURTHER EDUCATIONAL RESEARCH . . . . .	64
	IMPLICATIONS FOR EDUCATIONAL PRACTICE . . . . .	65
	BIBLIOGRAPHY . . . . .	67
	APPENDICES . . . . .	72
	APPENDIX A: Personal Data Form . . . . .	73
	APPENDIX B: F Scale . . . . .	77
	APPENDIX C: I-P Scale . . . . .	81
	APPENDIX D: Letter . . . . .	84
	APPENDIX E: Follow-up Letter . . . . .	86
	APPENDIX F: Tables . . . . .	88



# LIST OF TABLES

TABLE		PAGE
I	I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS BY YEARS OF TRAINING . . . . .	27
II	SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE SCORES DERIVED FOR THE TEACHER GROUPS CATEGORIZED BY YEARS OF TEACHER TRAINING . . . . .	29
III	COMPARISON BETWEEN ORDERED MEANS OF I-P SCALE SCORES DERIVED FOR THE TEACHER GROUPS CATEGORIZED BY YEARS OF TEACHER TRAINING . . . . .	30
IV	I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS BY EXTRAMURAL AND INTRAMURAL TRAINING . . . . .	31
V	SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE SCORES DERIVED FOR THE TEACHER GROUPS CATEGORIZED ACCORDING TO THE METHOD OF OBTAINING TEACHER TRAINING . . . . .	32
VI	COMPARISON BETWEEN PAIRS OF MEANS OF THE I-P SCALE SCORES DERIVED FOR THE TEACHER GROUPS ACCORDING TO THE METHOD OF OBTAINING TEACHER TRAINING . . . . .	32
VII	I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS BY YEARS OF TEACHING EXPERIENCE . . . . .	33
VIII	SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE SCORES DERIVED FOR THE TEACHER GROUPS CATEGORIZED ACCORDING TO THE YEARS OF TEACHER EXPERIENCE . . . . .	34





TABLE		PAGE
IX	I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS	
	BY AGE . . . . .	35
X	I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS	
	BY GRADE LEVEL TAUGHT . . . . .	36
XI	SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE	
	SCORES DERIVED BY THE TEACHER GROUPS CATEGORIZED	
	ACCORDING TO THE GRADE LEVEL TAUGHT . . . . .	37
XII	COMPARISON BETWEEN ORDERED MEANS OF I-P SCALE SCORES	
	DERIVED FOR THE TEACHER GROUPS CATEGORIZED BY	
	GRADE LEVEL TAUGHT . . . . .	37
XIII	I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS BY	
	RURAL OR URBAN LOCATION . . . . .	38
XIV	SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE	
	SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED	
	BY RURAL OR URBAN LOCATION . . . . .	39
XV	I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS	
	BY SEX . . . . .	40
XVI	SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE	
	SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED	
	BY SEX . . . . .	40
XVII	SUMMARY OF STEPWISE REGRESSION ANALYSIS OF THE	
	I-P SCALE . . . . .	41



TABLE		PAGE
XVIII	F SCALE SCORE MEANS AND STANDARD DEVIATIONS BY YEARS OF TEACHER TRAINING . . . . .	43
XIX	SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED BY YEARS OF TEACHER TRAINING . . . . .	43
XX	COMPARISON BETWEEN ORDERED MEANS OF THE F SCALE SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED BY YEARS OF TEACHER TRAINING . . . . .	45
XXI	F SCALE SCORE MEANS AND STANDARD DEVIATIONS BY EXTRAMURAL AND INTRAMURAL TRAINING . . . . .	46
XXII	SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED ACCORDING TO THE METHOD OF OBTAINING TEACHER TRAINING . . . . .	47
XXIII	COMPARISON BETWEEN ORDERED MEANS OF THE F SCALE SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED ACCORDING TO THE METHOD OF OBTAINING TEACHER TRAINING . . . . .	47
XXIV	F SCALE SCORE MEANS AND STANDARD DEVIATIONS BY YEARS OF TEACHING EXPERIENCE . . . . .	48
XXV	F SCALE SCORE MEANS AND STANDARD DEVIATIONS BY AGE . . . . .	50



TABLE		PAGE
XXVI	F SCALE SCORE MEANS AND STANDARD DEVIATIONS	
	BY GRADE LEVEL TAUGHT . . . . .	52
XXVII	SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE	
	SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED	
	BY GRADE LEVEL TAUGHT . . . . .	53
XXVIII	COMPARISON BETWEEN ORDERED MEANS OF F SCALE	
	SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED	
	BY GRADE LEVEL TAUGHT . . . . .	53
XXIX	F SCALE SCORE MEANS AND STANDARD DEVIATIONS BY	
	RURAL OR URBAN LOCATION . . . . .	54
XXX	SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE	
	SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED	
	BY RURAL OR URBAN LOCATION . . . . .	55
XXXI	F SCALE SCORE MEANS AND STANDARD DEVIATIONS	
	BY SEX . . . . .	56
XXXII	SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE	
	SCORES DERIVED FOR TEACHER GROUPS CATEGORIZED	
	BY SEX . . . . .	56
XXXIII	SUMMARY OF STEPWISE LINEAR REGRESSION ANALYSIS	
	ON AUTHORITARIANISM (F SCALE) . . . . .	57
XXXIV	INTERCORRELATIONS OF ALL VARIABLES . . . . .	89



TABLE		PAGE
XXXV	CORRELATION MATRIX OF VARIABLES ENTERING STEPWISE REGRESSION ON INTELLECTUALISM (I-P SCALE) CRITERIA . . . . .	90
XXXVI	CORRELATION MATRIX OF VARIABLES ENTERING STEPWISE REGRESSION ON AUTHORITARIANISM (F SCALE) CRITERIA . . . . .	91





# LIST OF FIGURES

FIGURE		PAGE
1	Relationship Between Intellectualism and Years of Teacher Training . . . . .	28
2	Relationship Between Authoritarianism and Years of Teacher Training . . . . .	44
3	Relationship Between Authoritarianism and Years of Teaching Experience . . . . .	49
4	Relationship Between Authoritarianism and Age . .	51



## CHAPTER I

### INTRODUCTION AND PROBLEM

There has been an emergent recognition by many educators that various aspects of teacher personality such as cognitive ability, values, attitudes, interests, emotional adjustment and needs are of significant importance. These variables have been analyzed in varying degrees, and teacher attitudes have received considerable attention; but the lack of adequate measuring instruments has undoubtedly hampered researchers in carrying out more systematic studies in this area.

Considerable concern regarding the development of intellectual attitudes in schools, colleges, and universities has been expressed. Nevitt Sanford (1962), for example, states that the fostering of an intellectual orientation is one of the major goals of college educators.

Hofstadter (1966), on the other hand, suggests that American society, which is essentially pragmatic, generally expects education to be practical and pay dividends by inculcating usable skills and broadening social opportunities. The American college is thus portrayed as a place designed to form character and develop sound principles rather than lead to the pursuit of truth.

In some universities it has been felt that faculties, such as Education, provide an intellectual training that is somewhat less adequate than that provided by the Humanities in that referent areas of work tend to be judged more for their practical value than for



their cultural and intellectual values (Anderson, 1959).

Anderson (1960) expresses the view that the professional educator in America is looked upon as an anti-intellectual by his academic colleagues. In an article dealing with teacher education in the Western United States, he states "School administrators are being trained not as intellectuals, independent, mindful of the value of truth, dignified in dealing with people and critical of authority, but primarily as hireable technicians."

Similar criticism has been made of teachers. Hofstadter (1966) points out that the teacher is the first more or less full-time professional representative of "the life of the mind" to enter into the experience of most people. The teacher is not merely an instructor but is a potential personal model for his or her pupils and is a living introduction to an intellectual life. Hofstadter feels that in Canada and the United States the school teacher has generally not been able to serve as such a model because he has not only no claim to an intellectual life of his own but often lacks the competence in skills which he is to impart. Hofstadter feels that with mass education serving more people for a longer time, education has become more universal, more democratic and less rigorous.

Parsons (1964) proposes that if our goal is to turn out open-minded, inquiring students who can tolerate a degree of ambiguity, then it seems reasonable to assume that teachers should possess these characteristics.





The report of the Royal Commission on Education in the Province of Alberta (1959) states: "The major aim of education is to stimulate initiative, critical thinking and the ability to be intellectually self-directing."

Much of the criticism of teachers would cause one to question whether teachers can assist their students in pursuit of the above aim. Was Bertrand Russell justified when he stated that pupils all too often "have to go outside the classroom to discover what is being thought by the most vigorous minds of their own time"; or was Soderbergh (1964) correct in asserting that veteran public school teachers are excessively dogmatic, authoritarian, resist change and lack open-mindedness?

Thus it becomes evident that more research is required to determine whether such allegations are justified or not. Further research into intellectual and authoritarian attitudes of teachers will serve to refute or support the criticism.

The purpose of this study is to examine intellectualism and authoritarianism of teachers. An attempt is made to determine the relationship of intellectualism and authoritarianism to length of teacher training, experience, age, sex, and grade level taught.





## DEFINITION OF TERMS

For the purpose of this study the following definitions will be used:

### Intellectualism

Block and Yuker (1964) used the definition given in English and English (1958) which defines an intellectual as "...a person interested in ideas in contrast with the merely practical man....it may be applied to one whose interest in ideas is not balanced by practicality." This definition contrasts the concept of the intellectual and the practical or pragmatic person.

Hofstadter (1966) indicates that an intellectual is one who lives for ideas; he examines, ponders, wonders, theorizes, criticizes and imagines. The concern with values and pursuit of truth are important to him. Ideas and abstractions are of prime importance in his life. The intellectual does not necessarily scorn the practical but he is more concerned with a quality in problems that is not defined by whether it is practical or not. Hofstadter looks at the intellectual as an ideologist having the leading role in innovation and often being responsible for hastening acceptance of change. He does not identify intellectualism with a type of philosophical doctrine which he prefers to call rationalism, although he accepts the fact that the intellectual often invokes ideas of the rationalist thinkers.

Intellectualism, then, as used in this study draws on the



thinking of Block, Yuker and Hofstadter. Intellectualism is the devotion to intellectual pursuits which involve ideas, abstractions, and interest in general culture and aesthetic goals.

For the purpose of this study intellectualism is that attitude which is being measured by the Intellectualism-Pragmatism Scale.

### Pragmatism

English and English (1958) define a pragmatic person as one with "...interest in practical outcomes, rather than in processes...." Pragmatism is defined as "...the philosophical doctrine that the meaning of anything derives from its practical consequences; that action is the test of truth."

Peirce and James (1907), considered to be the founders of the Principle of Pragmatism, believe that truth is pre-eminently to be tested by the practical consequences of belief. To them the function of thought is a guide to action. James (1959) points out that "theories become instruments, not answers to enigmas, in which we can rest." Pragmatism, according to James, is basically an empiricist attitude. He states that pragmatism is "the attitude of looking away from first things, principles, 'categories', supposed necessities; and of looking toward last things, consequences, facts."

James argues that the pragmatic attitude is essentially anti-intellectual since it deals with concreteness, facts, and action. It emphasizes practical aspects; it has disdain for verbal solutions,





useless questions and metaphysical abstractions. The "tender-minded" and "tough-minded" dichotomy to which James refers is essentially the intellectual-pragmatic dichotomy which has been used in this study.

For the purpose of this study, pragmatism is an attitude of interest in practical pursuits characterized by a concern with concrete ideas and practical outcomes rather than abstract ideas and cultural pursuits. The pragmatically oriented person is generally more oriented toward doing than thinking, tends to be somewhat limited in outlook, tends to be tied to the practical world of here and now and is very concerned with the practical consequences of his action.

#### Authoritarianism

Authoritarianism, as viewed by Adorno et al (1950), is a syndrome which is characterized by rigidity, stereotypy, conventionality, concreteness of thought, intolerance to ambiguity, exaggerated loyalty and affection toward parents and members of the ingroup and hostility toward the out-group.

The non-authoritarian pattern is characterized by affectionate, basically equalitarian and permissive interpersonal relationships indicating flexibility and readiness to accept and face one's weaknesses. The non-authoritarian has a greater ability to internalize and thus tends to be more creative and imaginative in both cognitive and emotional spheres.

The present study has accepted the definitions as used by Adorno et al and will use the F Scale to measure authoritarianism.



## CHAPTER II

### REVIEW OF RELATED LITERATURE AND THEORETICAL ORIENTATION

It has generally been agreed that attitudes and values are instilled early in life and are most easily modified at that time, but the results of various longitudinal and cross-sectional studies have demonstrated that significant changes do occur later. The following studies serve to illustrate that some significant changes in attitudes, values and beliefs occur between the freshman and senior year at college.

Webster, Freedman and Heist (1962) found that there is a general increase in liberalism and sophistication in political, social and religious outlooks from the freshman to the senior year.

Freedman (1964), in a longitudinal study at Vassar College, concluded that there are substantial personality changes between the time the student enters college and leaves four years later. Seniors are less authoritarian, more tolerant and display greater acceptance of intellectual values than do freshmen. This conclusion is supported by studies by Dressell and Lehmann (1965) and Lehmann, Sinha and Hartnett (1966).

Dressell and Lehmann (1965) found that stereotypic, dogmatic and traditional value orientations are exhibited more by Catholic students than non-Catholic, more by rural students than by urban





students, and more by students from lower socio-economic levels than by students from middle and upper classes. Dressell and Lehmann also found that male undergraduates are significantly more stereotypic, dogmatic and unreceptive to new ideas, and more traditional-value oriented than females. Females who are majoring in non-technical curricula are less dogmatic and less stereotypic than those in vocationally oriented programs.

By the end of four years, college students had improved significantly in critical thinking ability, had indicated a lessening of stereotypic beliefs and had shown a movement away from traditional-value orientation. They were generally more flexible, less authoritarian, more receptive to people of different races, creeds and religions, more liberal in their views and opinions, more open-minded, and more confident in their ability to deal with new problems.

As a result of an investigation of the relationship between length of college attendance and changes in stereotypic beliefs, dogmatism and value orientation, Lehmann et al (1966) conjecture that the mature and social environment of college might have more impact upon personality development than the courses and formal academic experiences. Plant (1962) suggests that perhaps college acts as a catalyst to speed up changes that would ordinarily occur as the individual matures but offers no concrete evidence in support of this conclusion.



These studies substantiate the occurrence of changes in attitudes toward more critical thinking, open-mindedness, flexibility, more tolerance, a greater acceptance of intellectual values and less authoritarianism on the part of college graduates.

### INTELLECTUALISM

In spite of the concern with the development of intellectual attitudes, there are relatively few systematic studies which have attempted to define intellectualism operationally and to measure it empirically.

Block and Yuker (1964) used the Intellectualism-Pragmatism Scale (I-P Scale) which was originally developed by Hegge, Wilcox and Clausen under their supervision in 1959, to measure a continuum rating of intellectual versus pragmatic attitudes. High scores on this Likert-type scale are interpreted as reflecting "intellectual-liberal" attitudes which are displayed by an interest in abstract ideas, general culture, open-mindedness and a belief that education is for enrichment. Low scores are considered to reflect "pragmatic-conservative" attitudes which are characterized by an interest in concrete ideas, closed-mindedness and a belief that the purpose of higher education should be for the development of useful skills.

A number of findings summarized from the Block and Yuker study are pertinent to this investigation.



1. Mean I-P scores increased each year from entering freshmen to graduate students.
2. Significant differences were obtained between various majors with Humanities ranking first, Social Sciences second, Education third, Natural Science fourth and Business last.
3. Day students were found to be more intellectually oriented while evening students were more pragmatically oriented.
4. Females scored higher on the intellectualism scale than males.

Some of the relevant points reported by Block and Yuker (1965) in their study of correlates of an intellectual orientation are:

1. Less religious students scored higher on the intellectualism scale than more religious students.
2. Kerlinger's sub-scale of Progressivism and Traditionalism correlated significantly (.41) with intellectualism. It was found that intellectualism is associated with a progressive attitude toward education.
3. The I-P Scale correlated significantly with five of six subscales (all except Theoretical) of the Allport Vernon Study of Values. Positive correlations with the Aesthetic and Social subscales and negative correlations with the Economic, Political, and Religious subscales were revealed.





4. The I-P Scale scores correlated inversely ( $-.46$ ) with the scores on a revised F Scale (Christie et al, 1958).

Block and Yuker report that Chesler (1964) found that intellectualism scores on the I-P Scale correlated negatively with a number of measures of prejudice, patriotism, authoritarianism and ethnocentrism. Those with high scores on the measures of prejudice and authoritarianism tended to be limited in their outlook and tended to be afraid of new and abstract ideas. They were oriented toward doing rather than thinking; thus they emphasized the practical world and the concern with the practical consequences of their actions.

#### AUTHORITARIANISM

The many attempts in recent years to develop valid and reliable instruments to measure that aspect of personality labelled "authoritarianism" have met with varying degrees of success.

Perhaps the most important study pertaining to authoritarianism was carried out by Adorno, Frenkel-Brunswik, Levinson and Sanford in 1950. Their research was based on the major hypothesis that "the political, economic and social convictions of the individual often form a broad coherent pattern, as if bound together by a 'mentality' or 'spirit.' This pattern is an expression of deep-lying personality needs. Adorno et al assume that opinions, attitudes and values depend on human needs; and, since personality is essentially an organization of these needs, then personality may be regarded as a determinant of





ideological preferences. They feel that long established patterns of hopes and aspirations, fears and anxieties dispose people to certain beliefs and make them more resistant to others.

Adorno et al consider "fixity" and "flexibility" as two extremes of a personality continuum. They recognize that personality evolves under the impact of one's environment which is, in general, more profound the earlier it is brought to bear in life.

Adorno et al felt that it was possible to develop an opinion-attitude scale to quantify underlying anti-democratic trends in personality. By using the psychoanalytic theory of personality, clinical methods for diagnosis of personality, and social-psychological devices for opinion and attitude measurement in their approach, they developed the F Scale. Much of this was based on their work which had been done in the development of the Anti-Semitism Scale and the Ethnocentrism Scale.

Adorno et al considered the central personality trends of the authoritarian individual to be characterized by the following variables:

1. Conventionalism --- rigid adherence to conventional, middle-class values, inflexible thinking and perceptual rigidity.
2. Authoritarian submission --- submissive uncritical attitude toward idealized moral attitudes of the in-group. This involves exaggeration of respect of



authority, over-protestation of love for parents, and the tendency to support over-control rather than the direction of one's conscience.

3. Authoritarian aggression --- tendency to condemn, reject and punish people who violate conventional values.
4. Anti-intracception --- opposition to the subjective, the imaginative, the tender-minded. This is generally expressed by the disapproval of the free emotional life, and the disapproval of the intellectual, theoretical or impractical.
5. Superstition and stereotypy --- belief in mystical determinants of individual fate; the disposition to think in rigid categories.
6. Power and toughness --- preoccupation with "dominance-submission," "strong-weak" dimension; identification with power figures; over-emphasis upon conventional attributes of ego; exaggerated assertion of strength and toughness.
7. Destruction and cynicism --- generalized hostility; a form of rationalized aggression - usually against minority groups.
8. Projectivity --- projection outwards of unconscious emotional impulses.



9. Sex --- exaggerated concern with sexual "goings-on"  
and punitiveness toward violators of sex mores.

The F Scale was devised to measure prejudice or anti-democratic potential without appearing to have this aim and without mentioning the name of any minority group. It is designed to measure the listed variables and thus yield a valid estimate of anti-democratic tendencies at the personality level. This does not imply that all the dispositions or features of the authoritarian personality pattern are touched upon in this scale but that sufficient features are included to reflect the anti-democratic trends adequately.

The variables which were included form a single syndrome which correlated significantly with anti-democratic trends in areas covered by surface ideology scales. The subsyndromes are not intended to isolate any of the traits but are considered within the frame of reference of the high scorer.

Adorno et al found, from interviews with the high and low scorers, that the high scorers tend to repress fears, weaknesses, passivity, sex impulses and aggressive feeling against authoritarian figures, especially parents. They make use of defence mechanisms such as projection and tend to avoid introspection and insight in general. They are more constricted, conventional and stereotypic than are the low scorers. The low scorers reveal a general readiness to accept and face their impulses and weaknesses. They are oriented toward intellectual or aesthetic goals and struggle for inner harmony





and self-actualization. Since they are generally able to internalize to a greater degree than the high scorers, they are generally more creative and imaginative in both the cognitive and emotional spheres.

Sanford (1956) indicated that authoritarianism, as a central structure of personality or as a system of response readiness more or less ingrained in the person, will be expected to express itself somehow in most of the individual's behavior. In a study which he carried out in 1950 in which a representative sample of the adult population of Philadelphia was interviewed in such a way that the interview included a short authoritarianism scale, he reported that those subjects exhibiting more authoritarianism were (1) less inclined to participate in political affairs, (2) less likely to join community groups, (3) less likely to become officers of the groups they did join and (4) more reluctant to accept responsibility.

The F Scale has been used extensively in studies relevant to the authoritarian personality. These studies which are pertinent to this investigation follow.

Christie, Havel and Seidenberg (1958) report that graduate students have lower F scores than undergraduates. This is supported by Fox (1965) who found that seniors are less authoritarian than freshmen. Fox reports that students in the Social Sciences are more equalitarian in their attitudes than students in Arts and Sciences.

Freehill (1967), using the Scale of Beliefs which is an extension of the F Scale, studied the differences between evaluations





of college experiences by authoritarians and non-authoritarians. Findings indicate that the authoritarians prefer impersonal material, logic-tight categorizations, orderly presentation of facts and are not comfortable with lightly structured ambiguous experiences and materials which emphasize variable criteria. They seek order. Generally they choose educational experiences marked by hierarchical organization, teacher dominated methods and limited student participation.

Although studies dealing specifically with authoritarianism of teachers are limited in number, the following studies do offer some relevant information. According to Tuppen (1965), younger teachers tend to have more open-minded, progressive ideas than older teachers. This is supported by Soderbergh (1964). Lupini (1965) discovered somewhat similar outcomes in that older principals and older female teachers are significantly more traditional in their views than are their younger counterparts. Are age and experience factors that are positively related to authoritarianism in teachers?

In a study of the relationship between authoritarianism and disposition toward teamwork in teacher personality, Perez (1966) found that age is a significant factor. This was supported in earlier studies by Horrocks and Buker (1951), Kuhlen and Lee (1943) and Cavan, Burgess, Havighurst and Goldhamer (1963) who reported that personality dispositions fluctuate with age.

Perez concluded that teaching experience is significantly



related to authoritarianism. It appears that cultural forces are at work to alter teacher personality as the individual matures with teaching. Perez found that the male with little or no experience tends to have a high disposition toward authoritarianism and a low disposition toward teamwork. With experience this trend reverses and the male with considerable teaching experience has a low disposition toward authoritarianism and a high disposition toward teamwork. The opposite trend takes place in female teachers. A significant inverse relationship between disposition toward authoritarianism and the disposition toward teamwork was noted.

Our society is placing an increasing importance on higher education, including graduate university training. Perez found that the formal graduate education, including the master's degree did not appear to be a significant factor in molding or altering attitudes toward authoritarianism.

Myers and Torrance (1961), in studying teachers who resisted change, identified them as being authoritarian, defensive, and insensitive to student needs, preoccupied with information giving, intellectually inert, and preoccupied with discipline.

Substantial research has been reviewed to indicate that F Scale scores are related to many behaviors which are associated with the general construct of authoritarianism. Factors such as rigidity, dogmatism, and intolerance of ambiguity have not been unequivocally related to the authoritarian syndrome but certainly appear to have



some relationship.

The review of literature points to several common factors which are significantly related, in varying degrees, to intellectualism and authoritarianism. These factors include training, sex, age and experience.

### HYPOTHESES

The majority of studies reviewed deal with college students, but it is believed that somewhat similar results will be found when teachers in the field are studied.

#### A. Hypotheses Concerning Intellectualism

1. The number of years of teacher training is positively related to intellectualism.
2. Teachers receiving their training primarily through intramural study will score higher on the intellectualism scale than teachers receiving their training primarily through extramural study.
3. The number of years of teaching experience is negatively related to intellectualism.
4. Age has a curvilinear relationship with intellectualism.
5. Teachers who teach higher grades will score higher on the I-P scale than will teachers who teach lower grades.







6. Teachers who are employed in urban areas will score higher on the intellectualism scale than teachers employed in rural areas.
7. Female teachers will score higher on the intellectualism scale than will male teachers.

B. Hypotheses Concerning Authoritarianism

1. The number of years of teacher training is negatively related to authoritarianism.
2. Teachers receiving their training primarily through intramural study will score lower on the authoritarianism scale than teachers receiving their training primarily through extramural study.
3. The number of years of teaching experience is positively related to authoritarianism.
4. Age has a positive relationship with authoritarianism.
5. Teachers who teach higher grades will score lower on the authoritarianism scale than will teachers who teach lower grades.
6. Teachers who are employed in urban areas will score lower on the authoritarianism scale than teachers employed in rural areas.
7. Male teachers will have lower scores on the authoritarianism scale than female teachers.



C. Hypothesis Concerning Intellectualism and Authoritarianism

There is a negative relationship between intellectualism and authoritarianism.



### CHAPTER III

#### EXPERIMENTAL DESIGN AND PROCEDURE

##### SAMPLING

A systematic sampling procedure was used to obtain a sample of teachers from the 1967-1968 Alberta teaching force. The sample interval chosen was thirty since a sample number of about six hundred was required from the total population of approximately eighteen thousand. A number between one and thirty was drawn from a hat in order to determine the first number. Number seventeen was picked, thus the seventeenth teacher listed with the Department of Education became the first teacher in the sample. All the subsequent teachers in this sample were then automatically determined by picking every thirtieth teacher from the list of the total teaching population in this province. This yielded a sample of 631 teachers.

It was decided that approximately four hundred teachers were required as a minimum number in this study in order to have an adequate representation of the total teaching population in Alberta. Since approximately seventy percent return of questionnaires was expected, it was determined that a sampling of about six hundred would be sufficient.



## INSTRUMENTS USED IN THIS STUDY

The Intellectualism-Pragmatism Scale

The Intellectualism-Pragmatism Scale (I-P Scale) was used as the measure of intellectualism and pragmatism. (Appendix C) The I-P Scale is a thirty-item Likert-type instrument devised to measure a continuum rating from relatively intellectual attitudes to relatively pragmatic attitudes.

The scale has been administered to approximately 3500 college students with an average reliability coefficient of .84 as estimated through the split-half technique corrected by using the Spearman-Brown formula. The scale is not factorially pure and it should be recognized that it does not constitute a pure measure of intellectualism and pragmatism. As a result of this, high scores on this scale are thought to reflect "intellectual-liberal" attitudes while low scores reflect "pragmatic-conservative" attitudes.

Each subject was asked to respond to the scale by indicating the extent of agreement or disagreement with each item by assigning a score for each item ranging from +3 to -3. Depending on the extent of agreement, the subject was to indicate +1 (least), +2 or +3 (most); or depending on the extent of disagreement, -1 (least), -2, or -3 (most) was to be assigned.

This test is scored by changing the algebraic sign of the responses to fifteen selected items which are worded in a manner to





suggest a "pragmatic-conservative" attitude. These items are numbered 4, 5, 6, 8, 9, 10, 11, 12, 15, 19, 20, 21, 26, 27, and 30. After these items are reversed the algebraic sum of all the items is determined. To eliminate the use of negative numbers, a constant of 90 is added to the algebraic sum thus providing a theoretical range of 0 to 180. This scoring procedure is consistent with that suggested by Block and Yuker.

Block and Yuker (1965) demonstrated a measure of construct validity by relating the I-P scores with a number of demographic, personality and educational variables. There is a significant correlation ( $p < .05$ ) between scores on the I-P Scale and several attitudinal measures such as the Allport Vernon Study of Values, the F Scale, Ethnocentrism (Chesler, 1964) and Attitudes Toward Education (Kerlinger and Kaya, 1959).

### The F Scale

The F Scale, Form 45 and 40, which was devised by Adorno et al in 1950 was used to measure authoritarianism. This form is comprised of those items which possessed the greatest discriminatory power in the previous forms. The items were chosen in such a way as to give a maximum of indirectness in the sense of not coming too close to the surface of overt prejudice. This is a Likert-type instrument consisting of twenty-nine items, twenty-eight of which were used in this study. One item which read, "It is best to use some prewar



authorities in Germany to keep order and prevent chaos," was removed from the F Scale because it was felt to be outdated.

The average of the reliability coefficients is .90, ranging from .81 to .97.

The subjects were asked to mark each statement in a range of +3 to -3 according to the extent of agreement or disagreement with each statement. +1 indicated a little agreement, +2 indicated agreement on the whole, +3 indicated strong agreement while -1 indicated a little disagreement, -2 indicated disagreement on the whole, and -3 indicated strong disagreement. (Appendix B)

For scoring purposes, this scale is converted to a 1-7 point scale by adding a constant of 4 to each item. Therefore the values assigned are as follows: +3 = 7 points, +2 = 6 points, +1 = 5 points, -1 = 3 points, -2 = 2 points, -3 = 1 point. If there is no response to an item, it is assigned 4 points. The total score is then determined by obtaining the sum of the points on all the items of the scale. The possible range is from 28 to 196 points.

#### PROCEDURE

The Personal Data Form (Appendix A) requesting information regarding sex, age, training, experience, grade level taught, etc., the I-P Scale, and the F Scale were mailed during the last week of December to the 631 teachers selected for this study. A letter (Appendix D) accompanying the questionnaires explained briefly the purpose of the



study and asked for co-operation in completing the questionnaires. Approximately three weeks after the initial contact, a follow-up letter (Appendix E) was sent.

A total of 491 (77.9%) questionnaires were returned but only 473 (75.1%) were usable since 7 were returned unanswered and 11 had not completed portions of the questionnaires. Four hundred and fifty (71.3%) of the questionnaires were used in this study. Twenty-one questionnaires arrived after processing of the data was begun and, as a result, were not used.

All of the I-P Scales and F Scales were scored. Identification numbers were assigned to each questionnaire. The following information was entered on the master data sheets: the identification number, the information from the Personal Data Form (sex, age, experience, etc.), the total F Scale score and the total I-P Scale score. This information was then punched on IBM cards.





## CHAPTER IV

### STATISTICAL ANALYSIS AND FINDINGS

#### PRELIMINARY STATISTICAL PROCEDURES

The data were processed by the use of the computer to provide the statistical analysis required to establish the substantialities of the hypotheses.

A correlation matrix of the variables was computed. Then the means and standard deviations of the I-P and F Scale scores were calculated for the groups of subjects. Each analysis was based on different predetermined groupings of subjects.

An analysis of variance was used to determine significance of differences. Where a significant F was noted, a modified q statistic using the Newman-Keuls Method and the studentized range statistic, Winer (1962), was used for testing the significance of the differences between all pairs of means.

Then a stepwise linear regression analysis was computed in order to ascertain which of the following variables: age, training, experience, grade level taught or area in which one lives (rural or urban), contribute significantly to the prediction of I-P Scale scores and F Scale scores.



# STATISTICAL FINDINGS PERTAINING TO INTELLECTUALISM

## Hypothesis 1

The number of years of teacher training is positively related to intellectualism.

The number of years of teacher training correlated .31 with intellectualism as measured by the I-P Scale and presented in Appendix F. It was noted that there was a general increase in intellectualism means from 103.57 for subjects with one year of training to a mean of 122.79 for subjects with six years of training as presented in Table I. This trend, however, did not continue for those subjects who had more than six years of training. The mean for this group was 120.88 shown in Figure 1.

TABLE I

## I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS BY YEARS OF TRAINING

Group		Number	Mean	Standard Deviation
1)	1 year	90	103.57	15.91
2)	2 years	73	110.41	19.57
3)	3 years	70	114.40	18.18
4)	4 years	122	117.03	17.65
5)	5 years	51	119.49	16.92
6)	6 years	28	122.79	14.01
7)	> 6 years	16	120.88	14.73
Total		450	113.63	18.36



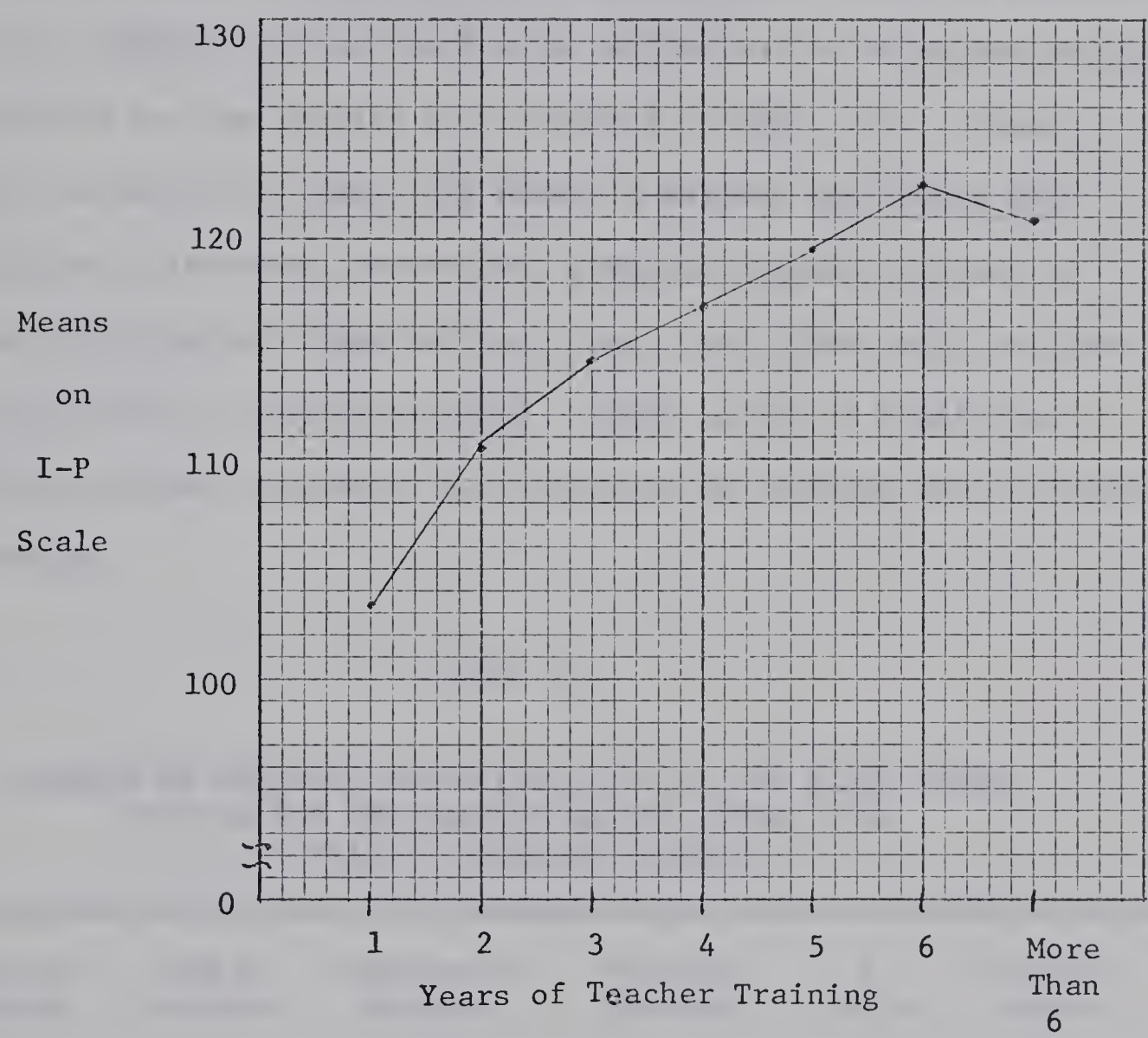


Figure 1

Relationship Between Intellectualism  
And Years of Teacher Training





An analysis of variance was then performed and presented in Table II to establish whether there were any significant differences between the mean I-P Scale scores. Because the F ratio was significant ( $p < .000001$ ) further tests were carried out by using the modified q statistic and the results are tabulated in Table III. Even a cursory inspection of Table III makes it evident that there were significant differences between the subjects who had one year of teacher training and those who had three, four, five, six, and more than six years of teacher training. There is also a significant difference between the means for two years of training and six years of training.

TABLE II

SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE SCORES  
DERIVED FOR THE TEACHER GROUPS CATEGORIZED  
BY YEARS OF TEACHER TRAINING

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	16263.00	6	2710.50	8.87	$p < .000001$
Error	135413.00	443	305.67		
Total	151676.00	449			



TABLE III

COMPARISON BETWEEN ORDERED MEANS OF I-P SCALE SCORES  
DERIVED FOR THE TEACHER GROUPS CATEGORIZED  
BY YEARS OF TEACHER TRAINING  
(Newman-Keuls Method)

Group	Means	6	7	5	4	3	2	1
		122.79	120.88	119.49	117.03	114.40	110.41	103.57
1) 1 year	103.57	19.22**	17.31**	15.92**	13.46**	10.83*	6.84	0.0
2) 2 years	110.41	12.38*	10.47	9.08	6.62	3.99	0.0	
3) 3 years	114.40	8.39	6.48	5.09	2.63	0.0		
4) 4 years	117.03	5.76	3.85	2.46	0.0			
5) 5 years	119.49	3.30	1.39	0.0				
7) 6 years	120.88	1.91	0.0					
6) 6 years	122.79	0.0						

\*\*Throughout this thesis a double asterisk is used to denote significance at the .01 level.

\*Throughout this thesis a single asterisk is used to denote significance at the .05 level.

The analysis of the data provides strong support for the acceptance of Hypothesis 1.

Hypothesis 2

Teachers receiving their training primarily through intramural study will score higher on the intellectualism scale than teachers receiving their training primarily through extramural study.

The 189 teachers in this study who had obtained their training primarily through extramural study had a mean intellectualism score of 112.65 and a standard deviation of 16.93 while the 202 teachers who had received their training primarily through intramural study had a



mean of 117.18 and a standard deviation of 19.19 as presented in Table IV.

TABLE IV  
I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY EXTRAMURAL AND INTRAMURAL TRAINING

Group	Number	Mean	Standard Deviation
1) Primarily Extramural	189	112.65	16.93
2) Intramural	202	117.18	19.19
3) Others	59	104.59	16.28
Total	450	113.63	18.36

In this study "primarily through extramural study" means that a teacher took more than 50 percent of his teacher training by attending summer schools and/or evening credit programs. The group of teachers classified as "others" shown in Table IV consisted of those teachers with one year of teacher training.

The analysis of variance in Table V indicates a significant F ratio ( $p < .00001$ ). Further testing as denoted in Table VI reveals that while differences do exist between the means for obtaining training extramurally or intramurally, these differences are not statistically significant.

Thus Hypothesis 2 is not supported.





TABLE V

SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE SCORES  
DERIVED FOR THE TEACHER GROUPS CATEGORIZED ACCORDING  
TO THE METHOD OF OBTAINING TEACHER TRAINING

Source of Variance	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	7548.00	2	3774.00	11.70	P < .00001
Experimental Error	144128.00	447	322.43		
Total	151676.00	449			

TABLE VI

COMPARISON BETWEEN PAIRS OF MEANS OF THE I-P SCALE SCORES  
DERIVED FOR THE TEACHER GROUPS ACCORDING TO THE  
METHOD OF OBTAINING TEACHER TRAINING

Group	Means	2 117.18	1 112.65	3 104.59
3) Other	104.59	12.59**	8.06**	---
1) Extramural	112.65	4.53	---	
2) Intramural	117.18	---		



Hypothesis 3

The number of years of teaching experience is negatively related to intellectualism.

Means and standard deviations of I-P Scale scores are presented in Table VII for the subjects of this study grouped according to the years of teaching experience. An analysis was performed. It is evident from Table VIII that no significant differences exist.

The findings do not support Hypothesis 3. There is no relationship between teaching experience and intellectualism as measured by the I-P Scale.

TABLE VII

I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY YEARS OF TEACHING EXPERIENCE

Group	Number	Mean	Standard Deviation
1) None	22	117.14	26.94
2) 1-5 years	126	116.42	18.05
3) 6-10 years	86	113.97	16.25
4) 11-15 years	62	108.00	18.11
5) 16-20 years	42	113.38	19.12
6) 21-25 years	51	112.16	18.80
7) 26-30 years	28	112.46	15.30
8) 30 years	33	113.91	15.88
Total	450	113.63	18.36



TABLE VIII

SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE SCORES  
DERIVED FOR THE TEACHER GROUPS CATEGORIZED ACCORDING  
TO THE YEARS OF TEACHER EXPERIENCE

Source of Variance	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	3380.00	7	482.86	1.44	$P < .19$
Experimental Error	148296.00	442	335.51		
Total	141676.00	449			

#### Hypothesis 4

Age has a curvilinear relationship with intellectualism.

An examination of the means and standard deviations in Table IX fails to indicate any consistent relationship between intellectualism scores and age. The correlation between I-P Scale scores and age ( $-.06$ ) is not significant. Since it is obvious from even a cursory inspection of Table IX that no relationship, either linear or curvilinear exists, no further analyses were undertaken. Hypothesis 4 is clearly rejected.





TABLE IX

I-P SCALE SCORE MEANS AND STANDARD  
DEVIATIONS BY AGE

Group	Number	Mean	Standard Deviation
1) Under 25	100	116.36	18.86
2) 26 - 30	64	115.72	19.55
3) 31 - 35	49	112.76	16.69
4) 36 - 40	33	112.33	17.61
5) 41 - 45	53	111.00	20.67
6) 46 - 50	37	112.16	18.43
7) 51 - 55	49	115.22	16.20
8) 56 - 60	36	109.44	16.13
9) 61 and Over	29	111.69	16.50
Total	450	113.63	18.36

Hypothesis 5

Teachers who teach higher grades will score higher on the I-P Scale than will teachers who teach lower grades.

The mean intellectualism scores for the different classifications of teachers are as follows: for the 118 teachers who are teaching at the grade one to three level it is 111.33; for the 90 teachers at the grade four to six level it is 109.92; for the 104 teachers at the grade seven to nine level it is 112.63 and for the 86 teachers at the grade ten to twelve level it is 119.41. These data are presented in tabular form in Table X.



TABLE X

I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY GRADE LEVEL TAUGHT

Group	Number	Mean	Standard Deviation
1) Grades 1-3	118	111.34	16.80
2) Grades 4-5	90	109.92	19.37
3) Grades 7-9	104	112.63	16.69
4) Grades 10-12	86	119.41	19.96
5) Adm.(No Teaching)	13	121.54	13.74
6) Others	39	116.41	18.26
Total	450	113.63	18.36

The analysis of variance data reveal a significant F ( $p < .003$ ) as presented in Table XI, but further testing indicates that there are no significant differences between the means for various grade levels. The only significant difference ( $p < .05$ ) exists between the mean for the grade four to six level and the mean for administrators who do not teach.

The hypothesis is not supported.



TABLE XI

SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE SCORES  
DERIVED BY THE TEACHER GROUPS CATEGORIZED  
ACCORDING TO THE GRADE LEVEL TAUGHT

Source of Variance	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	5944.00	5	1188.80	3.62	$P < 0.003$
Experimental Error	145732.00	444	328.23		
Total	151676.00	449			

TABLE XII

COMPARISON BETWEEN ORDERED MEANS OF I-P SCALE SCORES  
DERIVED FOR THE TEACHER GROUPS CATEGORIZED  
BY GRADE LEVEL TAUGHT  
(Newman-Keuls Comparison)

Groups	Means	5	4	6	3	1	2
		121.54	119.41	116.41	112.63	111.34	109.92
2) Grades 4-5	109.92	11.62 <sup>*</sup>	9.49	6.49	2.71	1.42	---
1) Grades 1-3	111.34	10.20	8.07	5.07	1.29	---	
3) Grades 7-9	112.63	8.91	6.78	3.79	---		
6) Others	116.41	5.13	3.00	---			
4) Grades 10-12	119.41	2.13	---				
5) Adm. (No Teaching)	121.54	---					





Hypothesis 6

Teachers who are employed in urban areas will score higher on the intellectualism scale than teachers employed in rural areas.

An examination of Table XIII reveals an intellectualism mean of 110.18 for the rural teachers as compared with a mean of 116.22 for the urban teachers. For the purposes of this study subjects who lived on farms or in towns which had a population of less than 5000 were labelled "rural" dwellers, while subjects who lived in towns or cities with populations of more than 5000 were labelled "urban" dwellers.

The summary of the analysis of variance is presented in Table XIV. Inspection of this table denotes a significant F ratio ( $p < .00001$ ).

The statistical evidence supports the acceptance of Hypothesis 6.

TABLE XIII

I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY RURAL OR URBAN LOCATION

Group	Number	Mean	Standard Deviation
Rural	193	110.18	16.69
Urban	257	116.22	19.11
Total	450	113.63	18.36



TABLE XIV

SUMMARY OF ANALYSIS OF VARIANCE OF THE I-P SCALE SCORES  
DERIVED FOR TEACHER GROUPS CATEGORIZED  
BY RURAL OR URBAN LOCATION

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	4027.00	1	4027.00	12.22	P < .0006
Error	147649.00	448	329.57		
Total	151676.00	449			

Hypothesis 7

Female teachers will score higher on the intellectualism scale than will male teachers.

The correlation matrix given in Appendix F indicates a correlation (-.06) between sex and intellectualism which is not significant. The summary of the analysis of variance reported in Table XVI shows a low F ratio which is not significant.

The analysis of the data does not support Hypothesis 7.



TABLE XV

I-P SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY SEX

Group	Number	Mean	Standard Deviation
Males	162	115.17	18.13
Females	288	112.76	18.43
Total	450	113.63	18.36

TABLE XVI

SUMMARY ANALYSIS OF VARIANCE OF THE I-P SCALE SCORES  
DERIVED FOR TEACHER GROUPS CATEGORIZED BY SEX

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	598.00	1	598.00	1.77	$P < .19$
Error	151078.00	448	337.23		
Total	151676.00	449			

Prediction of I-P Scale Scores

A stepwise linear regression analysis was used to determine which predictor variables accounted for the largest proportion of the criterion variance. The predictor variables used were age, training,





experience, grade level taught and area in which one lives (rural or urban). The criterion was intellectualism as measured by the I-P Scale.

The correlation matrix of the variables used in the stepwise analysis is given in Appendix F. An inspection of Table XVII reveals that there are two significant predictors. Training is the best predictor. Experience is the only other significant predictor. The two predictors account for 11.02 percent of the total variance. None of the other three variables, age, grade level taught, and the area of residence, contribute significantly to the prediction of I-P scale scores.

TABLE XVII

SUMMARY OF STEPWISE REGRESSION ANALYSIS  
OF THE I-P SCALE

Variables	Step	F Value For Variance	Signifi- cance	Percent of Variances Accounted For	Standard Error of Predicted Y
2) Training	1	48.84	$P < .000001$	9.83	17.47
3) Experience	2	5.98	$P < .02$	11.02	17.38



## STATISTICAL FINDINGS PERTAINING TO AUTHORITARIANISM

Hypothesis 1

The number of years of teacher training is negatively related to authoritarianism.

Teacher training as indicated in Appendix F has a significant correlation of  $-.31$  with authoritarianism. An examination of Table XVIII reveals that the mean authoritarianism score ranges from 109.54 for teachers with one year of training to 85.79 for teachers with six years of training. A slight increase, although not a significant one, is noted for those teachers with more than six years of training. Figure 2 shows this in graphic form.

The analysis of variance data in Table XIX indicate a highly significant F ( $P < .000001$ ). Further testing by the modified q statistic shows that a significant difference occurs between several pairs of ordered means. Significant differences are recorded in Table XX between the first year of training and the following: the third year ( $p < .05$ ), the fourth year ( $p < .05$ ), the fifth year ( $p < .01$ ), the sixth year ( $p < .01$ ), and the more than six years category ( $p < .01$ ). A significant difference is also indicated between the two year training level and the six year level ( $p < .01$ ).

The statistical analysis has provided significant evidence for the support of Hypothesis 1.



TABLE XVIII  
F SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY YEARS OF TEACHER TRAINING

Group	Number	Mean	Standard Deviation
1) 1 year	90	109.54	21.49
2) 2 years	73	101.49	19.91
3) 3 years	70	95.40	20.87
4) 4 years	122	94.76	20.27
5) 5 years	51	88.63	19.84
6) 6 years	28	85.79	24.53
7) > 6 years	16	91.56	18.80
Total	450	97.54	21.99

TABLE XIX  
SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE SCORES  
DERIVED FOR TEACHER GROUPS CATEGORIZED  
BY YEARS OF TEACHER TRAINING

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	23861.00	6	3976.83	9.09	$P < .000001$
Error	193715.00	443	437.28		
Total	217576.00	449			





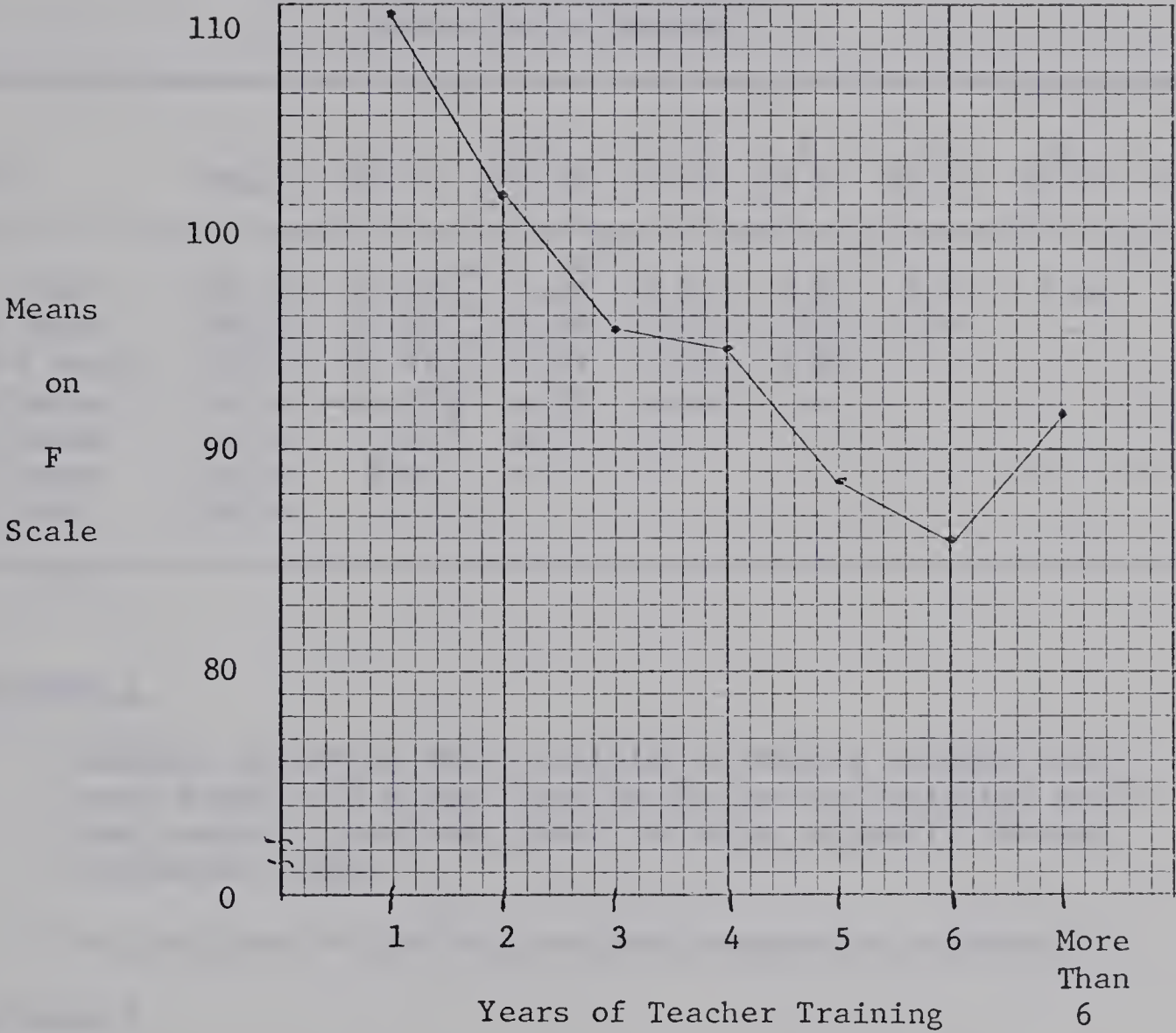


Figure 2

Relationship Between Authoritarianism  
And Years of Teacher Training



TABLE XX

COMPARISON BETWEEN ORDERED MEANS OF THE F SCALE SCORES  
 DERIVED FOR TEACHER GROUPS CATEGORIZED  
 BY YEARS OF TEACHER TRAINING  
 (Newman-Keuls Method)

Group	Means	1	2	3	4	7	5	6
		109.54	101.49	95.40	94.76	91.56	88.63	85.79
6) 6 years	85.79	23.75**	15.70**	9.61	8.97	5.77	2.84	---
5) 5 years	88.63	20.91**	12.86	6.77	6.13	2.93	---	
7) > 6 years	91.56	17.98**	9.93	3.84	3.20			
4) 4 years	94.76	14.78*	6.73	0.64	---			
3) 3 years	95.40	14.14*	6.10	---				
2) 2 years	101.49	8.05	---					
1) 1 year	109.54	---						

### Hypothesis 2

Teachers receiving their training primarily through intramural study will score lower on the authoritarianism scale than teachers receiving their training primarily through extramural study.

The analyses of the data indicate supportive evidence for Hypothesis 2.

A mean of 92.85 is denoted in Table XXI for the 202 teachers who received their training primarily through intramural study and a mean of 99.07 for the 189 teachers who received their training primarily through extramural study.

A significant F ( $P < .000003$ ) is shown in Table XXII. It should be noted that group three, "others," is not being considered in this particular hypothesis because the subjects in this group are one



year trained teachers. Further testing reveals a significant difference ( $p < .05$ ) between the authoritarianism scale means for those teachers receiving their training through intramural study and those receiving their training through extramural study. This is shown in Table XXIII.

TABLE XXI

F SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY EXTRAMURAL AND INTRAMURAL TRAINING

Group	Number	Mean	Standard Deviation
Primarily 1) Extramural	189	99.07	20.74
Primarily 2) Intramural	202	92.85	21.39
3) Others	59	108.71	23.15
Total	450	97.54	21.99





TABLE XXII

SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE SCORES  
DERIVED FOR TEACHER GROUPS CATEGORIZED ACCORDING  
TO THE METHOD OF OBTAINING TEACHER TRAINING

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	12244.00	2	6122.00	13.33	$P < .000003$
Experimental Error	205332.00	447	459.36		
Total	217576.00	449			

TABLE XXIII

COMPARISON BETWEEN ORDERED MEANS OF THE F SCALE SCORES  
DERIVED FOR TEACHER GROUPS CATEGORIZED ACCORDING  
TO THE METHOD OF OBTAINING TEACHER TRAINING  
(Newman-Keuls Method)

	Means	3 108.71	1 99.07	2 92.85
2) Intramural	92.85	15.86 <sup>**</sup>	6.22 <sup>*</sup>	---
1) Extramural	99.07	9.64 <sup>**</sup>	---	
3) Others	108.71	---		



Hypothesis 3

The number of years of teaching experience is positively related to authoritarianism.

The correlation (.11) between authoritarianism and teaching experience which is shown in Appendix F is not significant. An examination of the authoritarianism means according to years of teaching experience presented in Table XXIV does not show a consistent relationship. This is clearly exemplified by the graph in Figure 3.

Since there is no substantiating evidence for this hypothesis, it is rejected.

TABLE XXIV

F SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY YEARS OF TEACHING EXPERIENCE

Group	Number	Mean	Standard Deviation
1) None	22	85.59	20.39
2) 1-5 years	126	94.51	19.40
3) 6-10 years	86	100.10	22.85
4) 11-15 years	62	101.27	22.92
5) 16-20 years	42	95.36	23.78
6) 21-25 years	51	101.24	22.69
7) 26-30 years	28	93.71	22.00
8) > 30 years	33	103.73	18.80
Total	450	97.54	21.99



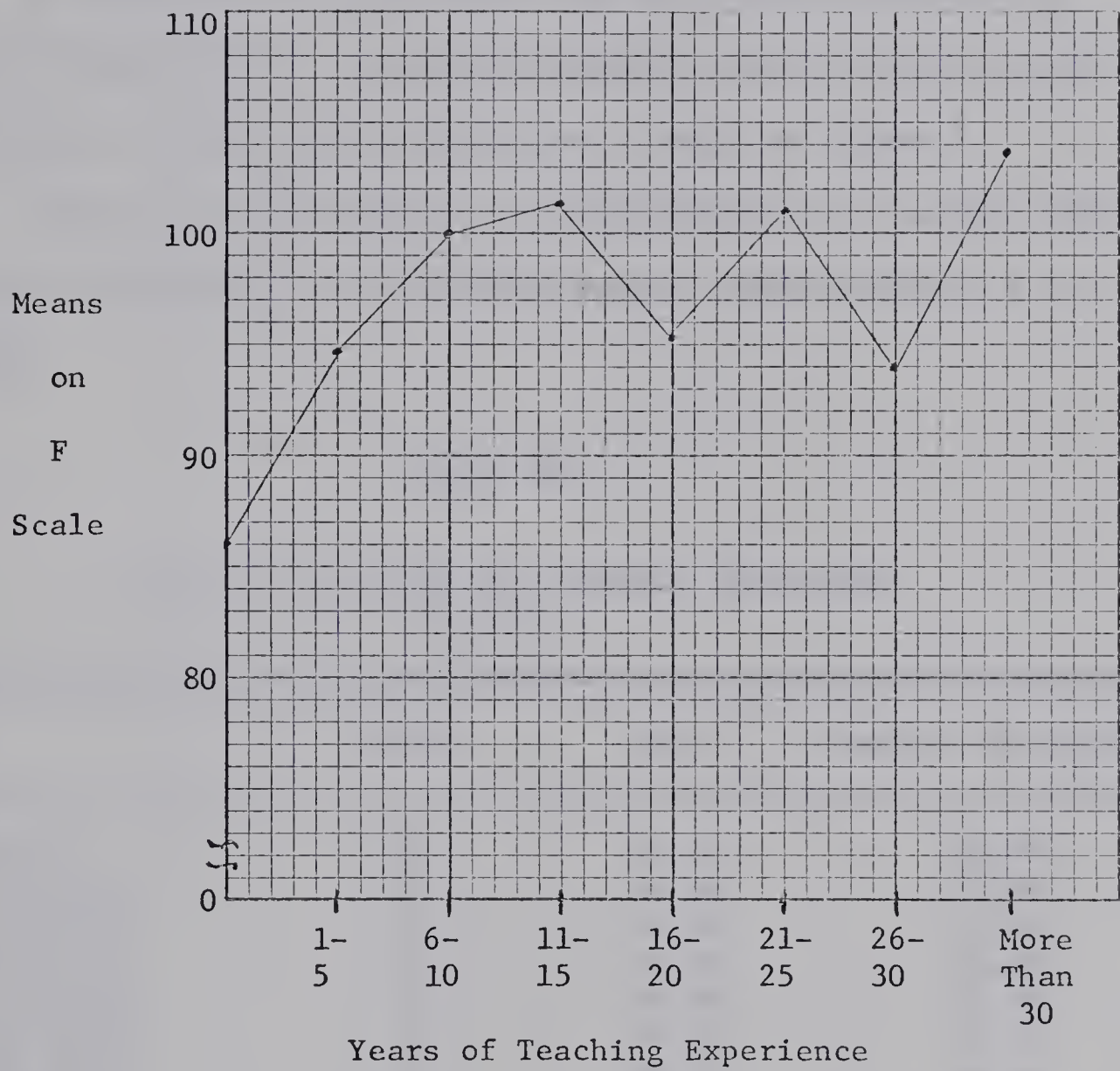


Figure 3

Relationship Between Authoritarianism  
And Years of Teaching Experience



Hypothesis 4

Age has a positive relationship with authoritarianism.

A correlation of .01 between age and authoritarianism is reported in Appendix F. The inconsistencies which are noted in the means given in Table XXV are shown more clearly in Figure 4.

Since the correlation is not significant it is assumed that age has no relationship to authoritarianism; thus Hypothesis 4 is rejected.

TABLE XXV  
F SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY AGE

Group	Number	Mean	Standard Deviation
1) Under 25	100	94.21	18.26
2) 26-30 years	64	99.86	23.44
3) 31-35 years	49	90.29	21.99
4) 36-40 years	33	93.55	21.50
5) 41-45 years	53	94.60	23.80
6) 46-50 years	37	98.57	19.27
7) 51-55 years	49	96.67	19.29
8) 56-60 years	36	108.14	20.36
9) 61 and over	29	113.10	24.24
Total	450	97.54	21.99





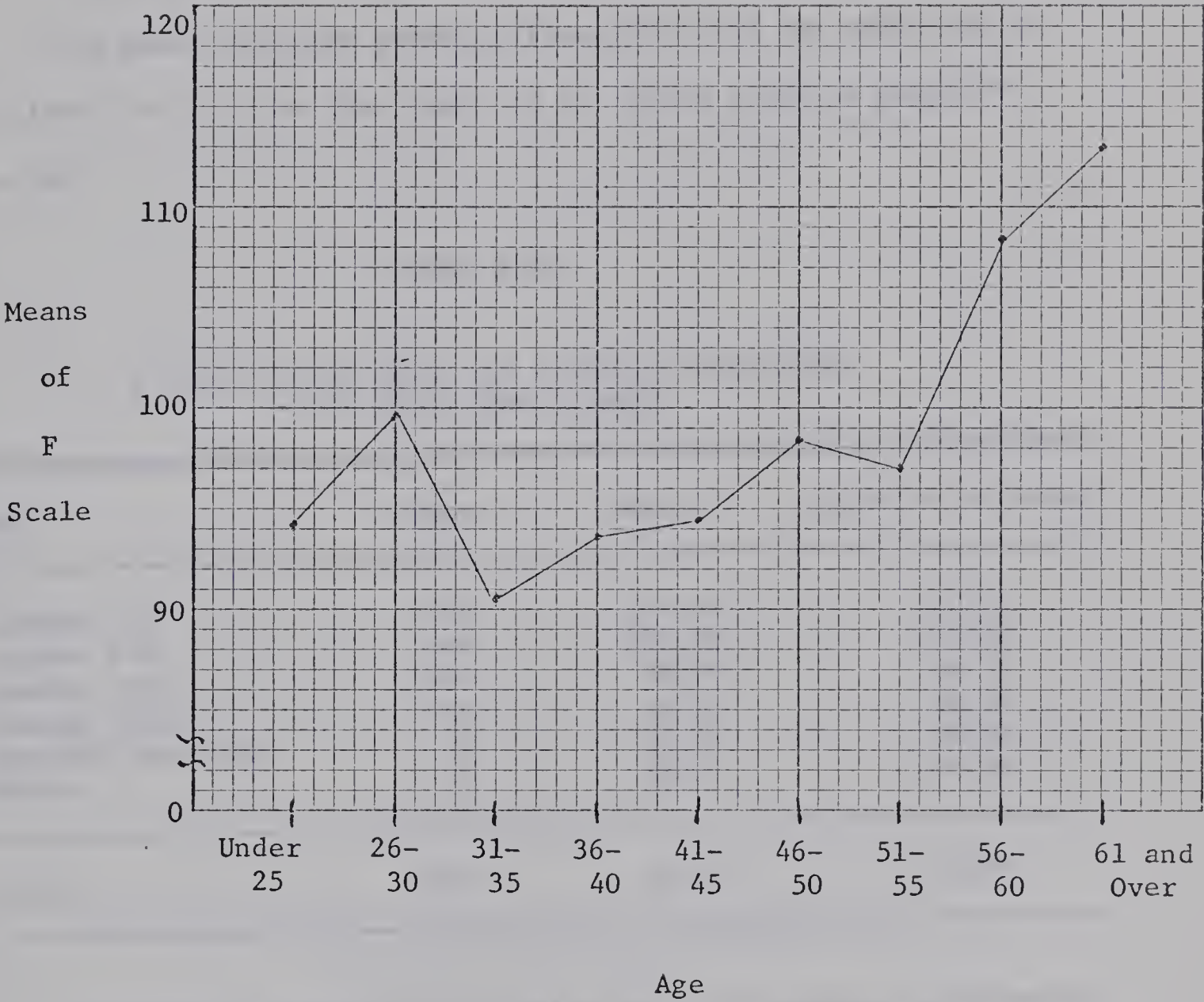


Figure 4

Relationship Between Authoritarianism  
And Age



Hypothesis 5

Teachers who teach higher grades will score lower on the F Scale than will teachers who teach lower grades.

The means decrease steadily from 101.40 at the grade one to three level to 93.53 at the grade ten to twelve level as shown in Table XXVI

TABLE XXVI

F SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY GRADE LEVEL TAUGHT

Group	Number	Mean	Standard Deviation
1) Grades 1-3	118	101.40	22.09
2) Grades 4-5	90	100.29	24.13
3) Grades 7-9	104	96.23	18.78
4) Grades 10-12	86	93.53	20.33
5) Adm.(No Teaching)	13	82.31	16.86
6) Others	39	96.95	25.12
Total	450	97.54	21.99

Although a negative correlation of  $-.13$  is shown in Appendix F and a significant F ratio ( $p < .02$ ) is indicated in Table XXVII further testing revealed that there are no significant differences between ordered means of the various grade groupings taught. A significant difference in means is shown only when administrators with no teaching duties are compared with the grade groupings. This is tabulated in Table XXVIII.



The final analysis of the data fails to provide supportive evidence of Hypothesis 5. As a result, this hypothesis is rejected.

TABLE XXVII

SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE SCORES  
DERIVED FOR TEACHER GROUPS CATEGORIZED  
BY GRADE LEVEL TAUGHT

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	7022.00	5	1404.40	2.96	P < .02
Experimental Error	210554.00	444	474.22		
Total	217576.00	449			

TABLE XXVIII

COMPARISON BETWEEN ORDERED MEANS OF F SCALE SCORES  
DERIVED FOR TEACHER GROUPS CATEGORIZED  
BY GRADE LEVEL TAUGHT  
(Newman-Keuls Method)

Groups	Means	1	2	6	3	4	5
		101.40	100.29	96.95	96.23	93.54	82.31
5) Adm.(No Teaching)	82.31	19.09**	17.98**	14.64*	13.92*	11.23*	---
4) Grades 10-12	93.54	7.86	6.75	3.41	2.69	---	
3) Grades 7-9	96.23	5.17	4.06	0.72	---		
6) Others	96.95	4.45	3.34	---			
2) Grades 4-5	100.29	1.11	---				
1) Grades 1-3	101.40	---					





Hypothesis 6

Teachers who are employed in urban areas will score lower on the authoritarianism scale than teachers employed in rural areas.

This hypothesis is supported by the statistical analyses which follow.

The mean authoritarianism score in Table XXIX for 193 rural teachers is 101.58 while 257 urban teachers have a mean of 94.51. The summary of the analysis of variance in Table XXX indicates a significant F ( $P < .0008$ ). Thus there is substantial evidence to support Hypothesis 6.

TABLE XXIX

F SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY RURAL OR URBAN LOCATION

Group	Number	Mean	Standard Deviation
Rural	193	101.58	21.51
Urban	257	94.51	21.86
Total	450	97.54	21.99



TABLE XXX

SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE SCORES  
DERIVED FOR TEACHER GROUPS CATEGORIZED  
BY RURAL OR URBAN LOCATION

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	5495.00	1	5495.00	11.61	P < .0008
Error	212081.00	448	473.40		
Total	217576.00	449			

Hypothesis 7

Male teachers will have lower scores on the authoritarianism scale than female teachers.

The authoritarianism mean for the 162 male teachers in this study is 94.27 while the mean for the 288 female teachers is 99.39.

The summary of the analysis of variance reveals a significant F at the .02 level. Further testing has demonstrated that there is a significant difference between the means for males and females.

The evidence supports the Hypothesis 7.

This evidence is provided in Tables XXX1 and XXX11.



TABLE XXXI

F SCALE SCORE MEANS AND STANDARD DEVIATIONS  
BY SEX

Group	Number	Mean	Standard Deviation
1) Males	162	94.27	20.19
2) Females	288	99.39	22.75
Total	450	97.54	21.99

TABLE XXXII

SUMMARY OF ANALYSIS OF VARIANCE OF THE F SCALE SCORES  
DERIVED FOR TEACHER GROUPS CATEGORIZED  
BY SEX

Source of Variation	Sum of Squares	Degrees of Freedom	Variance Estimate	F Value	Significance
Groups	2717.00	1	2717.00	5.67	$P < .02$
Experimental Error	214859.00	448	479.60		
Total	217576.00	449			



A stepwise linear regression analysis, employing the same predictor variables as were utilized earlier in the analysis with intellectualism as the criterion, was used. The variables included age, training, experience, grade level taught, and rural or urban location while the criterion was authoritarianism, as measured by the F Scale.

From the analysis it was discovered that similar results to those found in intellectualism were evident. The two variables that were significant predictors were training and experience. Training accounted for the greatest part of the variance.

The correlation matrix on which the stepwise regression analysis was based is given in Appendix F. Information which is pertinent to the analysis is tabulated in Table XXXIII.

TABLE XXXIII

SUMMARY OF STEPWISE LINEAR REGRESSION ANALYSIS  
ON AUTHORITARIANISM (F SCALE)

Variables	Step	F Value For Variance	Signifi- cance	Percent of Variances Accounted For	Standard Error of Predicted Y
2) Training	1	47.32	$P < .000001$	9.55	20.96
3) Experience	2	10.46	$P < .002$	11.62	20.74





## STATISTICAL FINDINGS CONCERNING INTELLECTUALISM AND AUTHORITARIANISM

### Hypothesis C

There is a negative relationship between intellectualism and authoritarianism.

A negative correlation of  $-.52$  between intellectualism and authoritarianism is shown in Appendix F. This correlation is highly significant and provides substantial support for the acceptance of this hypothesis.

### CONCLUSION

The findings, resulting from the statistical analyses of the data, indicate that two of the seven hypotheses relating to intellectualism have been supported while five hypotheses have been rejected.

Hypothesis 1 which deals with teacher training has received strong statistical support for its acceptance. The stepwise linear regression analysis revealed that training is the best predictor of intellectualism of the seven variables used in this study.

There is also ample statistical support for the acceptance of Hypothesis 6 which contends that urban teachers will have higher intellectualism scores than will rural teachers.

The method of obtaining training beyond the first year, teaching experience, age, grade level taught, and sex are not significantly related to intellectualism.



Four of the seven hypotheses pertaining to authoritarianism had sufficient statistical evidence to support their acceptance. Teacher training is negatively related to authoritarianism. The stepwise linear regression analysis indicated that years of teacher training is the best predictor of authoritarianism.

Hypothesis 2 which states that "teachers receiving their training primarily through intramural study will score lower on the authoritarianism scale than teachers receiving their training primarily through extramural study" was supported.

It was found that there is support for the hypothesis that urban teachers will be less authoritarian than rural teachers. The hypothesis that males are less authoritarian than females was also supported.

Teaching experience is not related to degree of authoritarianism. Also, the age of the teacher was found to have no significant relation to authoritarianism. Hypothesis 5 which is concerned with the relationship of grade level taught and authoritarianism was also not supported.

Statistical evidence indicates that there is a significant negative relationship between intellectualism and authoritarianism; thus Hypothesis C is supported.



The statistical analyses have provided strong evidence for several of the hypotheses. Although several variables have a significant relationship to intellectualism and authoritarianism, the variable which is most important appears to be the amount of teacher training.





## CHAPTER V

### DISCUSSION AND IMPLICATIONS

#### DISCUSSION OF FINDINGS

The major conclusion of this study must be that the amount of training a teacher has received is significantly related to the degree of intellectualism demonstrated by the teacher. The amount of training a teacher has is also significantly, although negatively, related to degree of authoritarianism.

The statistical analyses show a continual increase in intellectualism scores with each additional year of training up to and including the sixth year. There is a slight drop in the mean intellectualism scores for those teachers with more than six years of training. However, this drop is not statistically significant and can probably be explained by the fact that there were only sixteen teachers in the group. With such a small number of subjects one or two low scores were able to make the mean for this group lower than the mean for the group of teachers who had six years of teacher training. It may also be that many of the teachers with more than six years of training do not remain in teaching positions but move to administrative, college or university positions and that those teachers with this amount of training who remain are somewhat less intellectually oriented.



On the basis of this finding one would expect that those teachers with more training will generally reflect the intellectual orientation by being open-minded, flexible, interested in ideas and abstractions, and interested in general culture and aesthetic goals.

The amount of training a teacher has received was also found to be significantly, but negatively related to authoritarianism. This was exhibited in the continual drop in authoritarianism scores for those teachers who had one year of teacher training through to the lowest mean for the group of teachers who have six years of training. Again, just as in the case of intellectualism a reverse trend was noted from those teachers who have six years of training to those who have more than six years of training. The explanation which one could conjecture for this slight and insignificant change in direction is similar to that suggested in the case of intellectualism.

This study revealed that, generally, the more teacher training a teacher has the lower will be his authoritarianism score. It is likely then, that those teachers with more training will exhibit flexibility, tolerance and open-mindedness. Those teachers with little training can be expected to reflect many authoritarian characteristics such as rigidity, conventionality and concreteness of thought and intolerance to ambiguity.

Thus it may be seen that although two separate constructs were



related to the amount of training a teacher has received, in many ways the findings point in the same direction. On the basis of the positive relation demonstrated between intellectualism and amount of teacher training it was possible to conjecture that teachers with more training are more flexible, open-minded, etc. On the basis of the negative relationship between authoritarianism and amount of teacher training a similar conclusion may be proposed. Thus in some ways it appears that whatever language is used to describe the phenomenon, the fact remains that teachers who have received more teacher training are more flexible, more tolerant, more open-minded, more intellectual and less authoritarian.

#### LIMITATIONS OF THE STUDY

The major limiting factor in this study is no doubt the instruments used in measuring intellectualism and authoritarianism. These scales do not purport to be pure measures of the constructs they assess and therefore the meaning of the findings may not be as clear as one would like. They are no doubt measuring other attitudes as well as the ones desired.

An inspection of the answers on the I-P Scale revealed that the term "egg-head" bothered many teachers. Perhaps the definition of the term should have been clarified. Since the term is used in three items, the final score may have been influenced by this lack of clarity. Several teachers also remarked about the ambiguity of some of the items in the F Scale and others indicated that they felt that some of the





items should really have been separated into two items.

This study was a cross-sectional study. Generalizations about findings based on a cross-sectional study are seldom as convincing as generalizations based on a longitudinal study. This limitation cannot be overcome by "armchair" discussion, but can only be overcome by actually doing a longitudinal study.

#### IMPLICATIONS FOR FURTHER EDUCATIONAL RESEARCH

In so far as educational research is concerned a study could be undertaken to determine if there is a relationship between intellectualism and classroom performance. The study might be similar in design to the reported study but a different sampling procedure would be used. The sample of teachers would be composed of teachers who were identified as "successful" teachers by their colleagues and school administrators. Perhaps it would be possible to determine if, in fact, the "successful" teacher is intellectually oriented or is he more authoritarian in his outlook? Is there a relationship between intellectualism and successful performance as a teacher? Such a study may have implications for the plea of the public and school trustees for the identification of "master" teachers.

As pointed out earlier in this study some critics feel that the programs offered by the Faculty of Education are not as intellectually oriented as some of the programs offered by other faculties in the University. A study could be carried out to compare the intellectualism scores of teachers who received all of their higher





academic education through the Faculty of Education and those teachers who received their academic education in other faculties before taking their educational training. The results may have some implication for the type of courses required to foster intellectualism in teachers.

A study which is closely related to the preceding study would involve the teachers at the graduate level being compared. Are teachers who have taken all their teacher training at once and then gone out to teach for several years, more or less intellectual than those teachers who complete their graduate work after several years of teaching? This may have some implication for the Faculty of Education in their organization of course work.

#### IMPLICATIONS FOR EDUCATIONAL PRACTICE

The post-sputnik era has shocked Americans and Canadians into the realization of the consequences of anti-intellectualism in the school system and in life in general. Recently education has taken on greater importance (Hofstadter, 1966). Today, in most areas of life, formal training has become a prerequisite to success. There seems to be a mass demand for higher education which leads to more specialization. What impact does more training have on the teacher?

It is evident from the findings of this investigation that teacher training is of great importance in the development of intellectual attitudes. This study supports the hypothesis that more teacher training will be reflected in higher intellectualism. The Faculty of Education, which is responsible for this training, appears



to be providing training which reflects this increase in intellectualism. Thus some of Hofstadter's criticism which was indicated earlier in this study, may be rectified since the general trend for more teacher training should be reflected in increased intellectualism.

If teachers are to "stimulate initiative, critical thinking, and the ability to be intellectually self-directing" as suggested by the Royal Commission on Education (1959), and if teachers are expected to turn out open-minded, inquiring students who can tolerate a degree of ambiguity (Parsons, 1964), then it seems logical that teachers should possess most or all of these characteristics themselves. Since increased training appears to parallel increased intellectualism, the stress for more teacher training seems to be legitimate.

For many years the Alberta Teachers' Association has advocated four years of training as a minimum requirement for certification. The Faculty of Education has also encouraged increased minimum training. If our society does indeed place a high value on open-mindedness, flexibility, tolerance, and intellectualism in its teachers, then support for increasing minimum training for certification has been endorsed by the findings of this study.



## BIBLIOGRAPHY





## BIBLIOGRAPHY

- Adorno, T.W., Frenkel, E., Levinson, D.J., and Sanford, R.N. The Authoritarian Personality. New York: Harper, 1950.
- Alper, T., Levin, V., and Klein, M. Authoritarian versus humanistic conscience. Journal of Personality, 1964, 32, 313-333.
- Allport, Gordon. The Nature of Prejudice. Cambridge: Addison-Wesley, 1954.
- Anderson, C. A Canadian critic on teacher education in western United States. The Alberta Journal of Educational Research, 1960, VI, 186-191.
- Anderson, C. A visit to centres of educational research in the western universities of the United States. The Alberta Journal of Educational Research, 1959, V, 153-165.
- Bayles, Ernest E. Pragmatism in Education. New York: Harper and Row, 1966.
- Block, J.R. and Yuker, H.E. Correlates of an intellectual orientation among college students. Proceedings of the 73rd Annual Convention of the American Psychological Association, 1965, 315-316.
- Byrne, D. and Hamilton, M. Personality Research, A Book of Readings. New Jersey: Prentice-Hall, Inc., 1966, 223-245.
- Cavan, R.S., Burgess, E.W., Havighurst, R.J. and Goldhamer, H. Social participation and person adjustment in old age. In Ruhlen, R.G. and Thompson, G.G., Psychological Studies of Human Development. New York: Appleton-Century-Crofts, 1963.
- Christie, R. and Cook, Peggy. A guide to published literature relating to the authoritarian personality through 1956. Journal of Psychology, 1958, 45, 171-199.
- Christie, R., and Jahoda, M. Studies in the Scope and Methods of "The Authoritarian Personality". Illinois: Free Press, 1954.
- Christie, R., Havel, J., and Seidenberg, B. Is the F-scale irreversible? Journal of Abnormal and Social Psychology, 1958, 56, 143-159.



- Coser, L.A. Men of Ideas. New York: Free Press, 1965.
- Dressell, Paul and Lehmann, Irvin. The impact of higher education on student attitudes, values, and critical thinking abilities. Educational Record, 1965, 46, 248-258.
- English, H.B. and English, A.C. A Complete Dictionary of Psychological and Psychoanalytic Terms. New York: Longmans, Green, 1958.
- Eysenck, H.J. The Structure of Human Personality. New York: John Wiley & Sons, Inc., 1960.
- Ferguson, G.A. Statistical Analysis in Psychology and Education. New York: McGraw-Hill Inc., 1959.
- Freedman, M. The Impact of College, New Dimensions in Higher Education, No. 4, U.S. Office of Education, Washington: Government Printing Office, 1964.
- Freehill, M.F. Authoritarian bias and evaluation of college experience. Improving College University Teaching, 1967, 15, 18-19.
- Fox, J.T. Authoritarianism and the St. Ambrose College Student. Religious Education, 1965, 60, 272-276.
- Gelbmann, F.J. Authoritarianism and temperament. A dissertation for degree of Doctor of Philosophy. Washington, D.C.: The Catholic University of American Press, 1958.
- Haiman, S. Revised scale for measurement of open-mindedness. Speech Monograph, 1964, 31, 97-102.
- Hofstadter, R. Anti-intellectualism in American Life. New York: Alfred A. Knopf, 1966.
- Horrocks, J.E. and Buker, M.E. A study of the friendship fluctuations of preadolescents. Journal of Genetic Psychology, 1951, Vol. 78, 131-144.
- James, W. Pragmatism. New York: Longmans, Green, 1907.
- James, W. Pragmatism and Four Essays from The Meaning of Truth. Meridian Books Inc., 1959.





- Kerlinger, F.N. and Kaya, E. The predictive validity of scales constructed to measure attitudes toward education. Educational and Psychological Measurement, 1959, 19, 305-317.
- Kerlinger, F.N. and Kaya, E. Progressivism and traditionalism: Basic factors of educational attitudes. Journal of Social Psychology, 1958, 48, 111-135.
- Kerlinger, F.N. and Kaya, E. The construction and factor analytic validation of scales to measure attitudes toward education. Educational and Psychological Measurement, 1959, 19, 13-29.
- Kuhlen, J.E. and Lee, B.J. Personality characteristics and social acceptability in adolescence. Journal of Educational Psychology, 1943, 34, 321-340.
- Lehmann, I.J. Changes in critical thinking, attitudes and values from freshmen to senior years. Journal of Educational Psychology, 1965, 60, 272-276.
- Lehmann, I.J. and Sinha, B.K. and Hartnett, R.T. Changes in attitudes and values associated with college attendance. Journal of Educational Psychology, 1966, 57, 89-98.
- Maslow, A.H. The authoritarian character structure. Journal of Social Psychology, 1943, 18, 401-411.
- Myers, R.E. and Torrance, P. Can teachers encourage creative thinking? Educational Leadership, 1961, 19, 156-159.
- Parsons, T.W. Attitudes and values: tools or chains. Educational Leadership, 1964, 21, 343-346.
- Perez, Joseph F. Authoritarianism and teamwork disposition in teacher personality. Peabody Journal of Education, 1966, 43, 215-222.
- Plant, W.T. Personality changes associated with a college education. Final report, United States Office of Education, Cooperative Research Branch Project, No. 348, 1962.
- Ratsoy, E.W. Professional attitudes of prospective teachers. The Canadian Administrator, 1966, V, No. 8.
- Report of the Royal Commission on Education in Alberta. Edmonton. Queen's Printer, 1959.



- Rokeach, M. Narrow-mindedness and personality. Journal of Personality, 20, 234-251.
- Rokeach, M. The Open and Closed Mind. New York: Basic Books, 1960.
- Sanford, N. The approach of the authoritarian personality. In McCary, J.L. (Ed.) Psychology of Personality. New York: Lagos Press, 1956.
- Sanford, N. (Ed.) The American College. New York: Wiley, 1962.
- Soderbergh, P.A. Dogmatism and the public school teacher. Journal of Teacher Education, 1964, 15, 245-251.
- Stotsky, B.A. and Lockman, S.J. The authoritarian personality as a stereotype. Journal of Psychology, 1955, 39, 325-328.
- Thurstone, L.L. The Measurement of Values. Chicago: University of Chicago Press, 1959.
- Tuppen, C.J.S. The measurement of teachers' attitudes. Educational Research, 1965-66, 8, 142-145.
- Webster, H., Freedman, M.B. and Heist, P. Personality changes in college students. In N. Sanford (Ed.) The American College, New York: Wiley, 1962, 811-846.
- Winer, B.J. Statistical Principles in Experimental Design. New York: McGraw-Hill Co.Inc., 1962.
- Yuker, H.E. and Block, J.R. Intellectual attitudes and college performance. Paper read at American Psychological Association, Los Angeles, 1964.





## APPENDICES



APPENDIX A  
PERSONAL DATA FORM



## Personal Data Form

Please complete the data sheet by placing a check mark in the appropriate space.

- |                  |   |
|------------------|---|
| 1. ....Male      | 4. Years of teacher training as<br>evaluated for salary purposes: |
| .....Female      | .....1 year   |
| 2. ....Married   | .....2 years  |
| .....Single      | .....3 years  |
| .....Divorced    | .....4 years  |
| .....Widow or    | .....5 years  |
| .....Widower     | .....6 years  |
| 3. Age:          | .....more than 6 years  |
| .....Under 21    | 5. Teacher training beyond the first<br>year was acquired:        |
| .....21 - 25     | .....primarily through summer<br>school and evening courses       |
| .....26 - 30     | .....primarily through full<br>time study (more than 50%)         |
| .....31 - 35     | .....Other (specify)  |
| .....36 - 40     |   |
| .....41 - 45     |   |
| .....46 - 50     |   |
| .....51 - 55     |   |
| .....56 - 60     |   |
| .....61 and over |   |





## 6. Years of teaching experience:

- .....None
- .....1 - 5 years
- .....6 - 10 years
- .....11 - 15 years
- .....16 - 20 years
- .....21 - 25 years
- .....26 - 30 years
- .....more than 30 years

## 7. I am teaching at the:

- .....grade 1 - 3 level
- .....grade 4 - 6 level
- .....grade 7 - 9 level
- .....grade 10 - 12 level
- .....administrator with no teaching duties
- .....other (specify)

## 8. My position in this school is:

- .....a teacher
- .....teacher and administrator
- .....an administrator
- .....teacher and counselor
- .....counselor
- .....other (specify)

## 9. I have been in administration (principal, assistant principal, vice-principal, assistant vice-principal, etc.) for:

- .....not applicable
- .....5 years or less
- .....6 - 10 years
- .....11 - 15 years
- .....16 - 20 years
- .....21 - 25 years
- .....more than 25 years

10. My teaching load is primarily concerned with the teaching of:  
(check one)

- .....Most elementary subjects
- .....Mathematics
- .....Science
- .....Language (English)
- .....Literature
- .....Social Studies
- .....Fine Arts
- .....Industrial Arts
- .....Physical Education
- .....Business Education
- .....Languages (other than English)
- .....Other (specify)



11. The school in which I teach  
has a staff of:

.....1 - 5 teachers

.....6 - 10 teachers

.....11 - 15 teachers

.....16 - 20

.....21 - 25

.....26 - 30

.....31 - 50

.....more than 50  
teachers

12. I live in: (Check one please)

.....a) a rural area

b) in an area which has  
a population

.....under 1,000

.....1,000 - 5,000

.....5,000 - 10,000

.....10,000 - 25,000

.....25,000 - 50,000

.....50,000 or more

13. Getting one's academic  
education primarily  
through full time atten-  
dance at university is  
better than getting one's  
education primarily  
through summer school  
and evening course work.  
(Check one)

.....I agree

.....I disagree



## APPENDIX B

### F SCALE



## F-Scale

The following is a study of what teachers think and feel about a number of important social and personal questions. The best answer to each statement below is your personal opinion. Many different and opposing points of view are covered. You may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others. Whether you agree or disagree with any statement, you can be sure that many people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3, or -1, -2, -3, depending on how you feel in each case.

+1: I AGREE A LITTLE

-1: I DISAGREE A LITTLE

+2: I AGREE ON THE WHOLE

-2: I DISAGREE ON THE WHOLE

+3: I AGREE VERY MUCH

-3: I DISAGREE VERY MUCH

- .....1. Obedience and respect for authority are the most important virtues children should learn.
- .....2. A person who has bad manners, habits, and breeding can hardly expect to get along with decent people.
- .....3. If people would talk less and work more, everybody would be better off.
- .....4. The businessman and the manufacturer are much more important to society than the artist and the professor.
- .....5. Science has its place, but there are many important things that can never possibly be understood by the human mind.
- .....6. Young people sometimes get rebellious ideas, but as they grow up they ought to get over them and settle down.
- .....7. What this country needs most, more than laws and political programs, is a few courageous, tireless, devoted leaders in whom the people can put their faith.
- .....8. No sane, normal, decent person could ever think of hurting a close friend or relative.





- .....9. Nobody ever learned anything really important except through suffering.
- .....10. What the youth needs is strict discipline, rugged determination, and the will to work and fight for family and country.
- .....11. An insult to our honor should always be punished.
- .....12. Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped, or worse.
- .....13. There is hardly anything lower than a person who does not feel a great love, gratitude, and respect for his parents.
- .....14. Most of our social problems would be solved if we could somehow get rid of the immoral, crooked, and feeble-minded people.
- .....15. Homosexuals are hardly better than criminals and ought to be severely punished.
- .....16. When a person has a problem or worry, it is best for him not to think about it, but to keep busy with more cheerful things.
- .....17. Every person should have complete faith in some supernatural power whose decisions he obeys without question.
- .....18. Some people are born with an urge to jump from high places.
- .....19. People can be divided into two distinct classes: the weak and the strong.
- .....20. Some day it will probably be shown that astrology can explain a lot of things.
- .....21. Wars and social troubles may someday be ended by an earthquake or flood that will destroy the whole world.
- .....22. No weakness or difficulty can hold us back if we have enough will power.
- .....23. Most people don't realize how much our lives are controlled by plots hatched in secret places.



- .....24. Human nature being what it is, there will always be war and conflict.
- .....25. Familiarity breeds contempt.
- .....26. Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching an infection or disease from them.
- .....27. Nowadays more and more people are prying into matters that should remain personal and private.
- .....28. The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it.



## APPENDIX C

### I-P SCALE





## I-P Scale

Indicate your extent of agreement or disagreement with the following items by assigning a score for each item ranging from +3 to -3. Depending on the extent of your agreement, you will assign either +1 (least) , +2 or +3 (most). Depending on the extent of your disagreement you will assign either -1 (least), -2 or -3 (most).

Please assign a score for all items.

- .....1. The primary purpose of higher education should be individual growth and development.
- .....2. Americans are too materialistic.
- .....3. It is important for Americans to understand communism.
- \*  
.....4. Intellectuals should try to be more like normal folks.
- \*  
.....5. Most deep thinkers are too liberal.
- \*  
.....6. Too many gifted people have communistic tendencies.
- .....7. Eggheads get along well with most people.
- \*  
.....8. Ideas are all right, but it's getting the job done that counts.
- \*  
.....9. Too many new ideas come from radicals and trouble makers.
- \*  
.....10. Colleges and schools should spend more time getting students ready for jobs and less time filling them with useless information.
- \*  
.....11. People with new ideas are usually radicals who are trying to cause trouble.
- \*  
.....12. The greatest contributions to civilization have been made by practical men.
- .....13. Too few college students are intellectually inclined.
- .....14. Philosophy is a very valuable study.
- \*  
.....15. Nations are built by hard work, not abstract ideas.



- .....16. Eggheads should be given more say in politics and government.
- .....17. People should study many religions before making a choice.
- .....18. Poetry and art have made many real contributions to civilization.
- \*.....19. Bookworms are usually dull people.
- \*.....20. Being a philosophy major tends to separate one from reality.
- \*.....21. If high-brow thinkers would leave well enough alone, we would all be better off.
- .....22. Thinkers are more important today than doers.
- .....23. In today's society we need thinkers more than trained personnel.
- .....24. If I were going to see a play, I would prefer a serious drama to a musical or light comedy.
- .....25. A person who goes to a concert is enriching his life.
- \*.....26. Music and art courses are usually a waste of time.
- \*.....27. Most eggheads are snobs.
- .....28. Colleges should concentrate more on the humanities and less on specialization.
- .....29. If I had money, I would rather take a trip to Europe than buy a car.
- \*.....30. Artists should go back to painting things as they really are.

(Pragmatic items are starred)



## APPENDIX D

### LETTER



Box 51  
SHERWOOD PARK, Alberta

December 27, 1967

Dear Fellow Teacher:

The accompanying questionnaires deal with a study that I am conducting as a graduate student in Educational Psychology, University of Alberta. This study, under the supervision of Dr. Zingle, is required for the completion of my thesis in the M.Ed. program.

This research project is concerned with views of teachers and the relationship of these views to such factors as teacher training, experience, grade level taught, age and sex.

I would be grateful if you would assist me in this research by completing the enclosed questionnaires at your earliest convenience. Your name is not required since the information will not deal with individual cases.

If you have any enquiries regarding this study do not hesitate to contact me.

Thank you in advance for your co-operation.

Yours fraternally,

"Mary A. Knox"

(Mrs.) Mary A. Knox





## APPENDIX E

### FOLLOW-UP LETTER



Box 51  
Sherwood Park, Alberta

January 18, 1968

Dear Fellow Teacher:

A questionnaire concerned with the views of teachers and the relationship of these views to such factors as training, experience, grade level taught, age and sex was sent to you about three weeks ago.

I would be grateful if you would complete the questionnaire and return it to me. The success of a research project such as mine depends to a great extent on the cooperation of the respondents.

If you have already returned the questionnaire, please accept my thanks for your cooperation.

Yours fraternally,

(Mrs. Mary A. Knox.



## APPENDIX F





TABLE XXXIV

INTERCORRELATIONS OF ALL VARIABLES

N=450	Sex	Age	Years of Training	Training Beyond First Year	Teaching Experience	Grade Level Taught	Rural or Urban	F Scale	I-P Scale
Sex	1.00	.07	-.41	.04	-.01	-.45	-.11	.11	-.06
Age		1.00	-.05	-.20	.52	-.03	-.12	.01	-.06
Years of Training			1.00	-.19	.12	.37	.31	-.31	.31
Training Beyond First Year				1.00	-.30	.08	-.05	.05	-.05
Teaching Experience					1.00	-.01	-.15	.11	-.07
Grade Level Taught						1.00	.04	-.13	.15
Rural or Urban							1.00	-.15	.13
F Scale								1.00	-.52
I-P Scale									1.00



TABLE XXXV

CORRELATION MATRIX OF VARIABLES ENTERING STEPWISE  
REGRESSION ON INTELLECTUALISM (I-P SCALE) CRITERIA

Predictor Variables	1	2	3	4	5	6
1) Age	1.00	.05	.52	-.03	-.12	-.06
2) Training		1.00	.12	.37	.31	.31
3) Experience			1.00	-.01	-.15	-.07
4) Grade Level Taught				1.00	.04	.15
5) Rural or Urban					1.00	.13
6) I-P Scale						1.00



TABLE XXXVI

CORRELATION MATRIX OF VARIABLES ENTERING STEPWISE  
REGRESSION ON AUTHORITARIANISM (F SCALE) CRITERIA

Predictor Variables	1	2	3	4	5	6
1) Age	1.00	.05	.52	-.03	-.12	.01
2) Training		1.00	.12	.37	.31	-.31
3) Experience			1.00	-.01	-.15	.11
4) Grade Level Taught				1.00	.04	-.13
5) Rural or Urban					1.00	-.15
6) F Scale						1.00







**B29883**